

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1-2. (cancelled)

3. (currently amended) ~~A one-way clutch as claimed in claim 2,~~ A one-way clutch for providing coupling between a first rotatable shaft having an axis of rotation, and a second, abutting rotatable shaft having a co-axial axis of rotation, the one-way clutch being capable of coupling the shafts if the first shaft is rotated in an engaging direction relative to the second shaft but of uncoupling the shafts if the first shaft is rotated in an opposite coasting direction relative to the second shaft;

characterised in that the one-way clutch includes a resilient surface within the or each pocket against which a side of the member lies, permitting minor changes in the angle of rotation of the pawl member to occur when in the engaged position, so that relative dimensional imperfections are at least partially compensated and so that load sharing is facilitated between more than one engaged set.

4. (currently amended) The ~~A~~-one-way clutch as claimed in claim-~~2~~ 3, characterised in that the one-way clutch includes a resilient protrusion within the or each pawl member extending from a side of the member which protrusion, when in the engaged position, makes contact with a side of the pocket permitting minor changes in the angle of rotation of the pawl to occur when in the engaged position, so that dimensional imperfections are at least partially compensated and so that load sharing is facilitated between engaged pairs of pawls and pockets.

5. (currently amended) A one-way clutch for providing coupling between a first rotatable shaft having an axis of rotation, and a second, abutting, rotatable shaft having a co-axial axis of rotation, the one-way clutch having a plurality of pawl members, each pawl member having an axis of rotation~~capable of coupling the shafts if the first shaft is rotated in an engaging direction relative to the second shaft but of uncoupling the shafts if the first shaft is rotated in a opposite, coasting direction relative to the second object, and in which a plurality of pawl members each having an axis of rotation, a first engaging face, and a second engaging face; the faces being separated by a substantially rigid rod, are disposed about a first plate or annulus in a position wherein each may reversibly engage from time to time with a corresponding pocket disposed about a second plate or annulus in order to provide coupling, characterised in that the one-way clutch includes a directionally dependent biasing means is applied to the or each pawl member of the one-way clutch, so that in use the or each member is biased to extend towards a corresponding pocket when the relative movement of the first and second rings of the one way clutch occurs in the engaging direction, and is biased to retract away from a corresponding pocket when movement is in the coasting direction; said biasing means comprising a dragging contact with a side surface of the apposing plate or annulus; the dragging contact~~

being generated by a caster wheel mounted in rolling contact with the side surface upon the free end of the rod.

6-7. (cancelled)

8. (currently amended) The ~~A~~-one-way clutch as claimed in claim 5~~7~~, characterised in that an axis of rotation of the caster wheel is not parallel to the axis of rotation of the one-way clutch so that, when in use, the amount of drag is increased.

9. (currently amended) The ~~A~~-one-way clutch as claimed in claim 5~~6~~, characterised in that the dragging contact is generated by a ball, supported within a cup, mounted in rolling contact with the side surface of the apposing ring or plate, upon the free end of the ~~beam~~ rod.

10. (currently amended) The ~~A~~-one-way clutch as claimed in claim 5~~6~~, characterised in that the beam supporting the free end held in dragging contact with the side surface of the apposing plate or annulus exhibits resilience in a single axis so that, when in use, the free end is maintained in dragging contact with the surface.

11. (currently amended) The ~~A~~-one-way clutch as claimed in claim ~~5-6~~, characterised in that the directionally dependent biasing means comprises a pattern of linear, slanting magnetised zones impressed into a ferromagnetically hard surface of an annulus bearing pockets, any one of the zones being capable of interaction with a ferromagnetic mass mounted rigidly and to one side of the pawl member in a position closely overlying the surface bearing the magnetised zones, so that in use motion in the engaging direction will tend to cause the mass to be attracted outwards and hence pull the pawl member outwards towards a pocket located upon the apposing ring, whereas motion in the coasting direction will tend to repel the mass and cause the member to be retracted.

12. (currently amended) The ~~A~~-one-way clutch as claimed in claim ~~10-11~~ 5, characterised in that the ferromagnetic mass is ferromagnetically hard and is magnetised in a pattern complementary to that of the surface of the ring.

13-19. (cancelled)

20. (new) A one-way clutch for providing coupling between a first rotatable shaft having an axis of rotation, and a second, abutting, rotatable shaft having a co-axial axis of rotation, the one-way clutch being capable of coupling the shafts if the first shaft is rotated in an engaging direction relative to the second shaft but of uncoupling the shafts if the first shaft is rotated in a opposite, coasting direction relative to the second object, characterised in that the one-way clutch includes

a) a first support frame, plate, or ring held upon the first shaft and supporting a first integer number n , greater than one, of pawl members each having a free end and a supported end separated by a rigid portion, each member being evenly spaced about a co-axial locus on a first end face of the first ring and the free end of each being directed towards a second support frame or ring,

b) the second support frame, plate, or ring, held upon the second shaft and adjacent to the first ring and supporting a second integer number m , greater than one, of pockets each capable of receiving a free end of one of the members, each pocket being evenly spaced about a co-axial locus on a second end face of the second ring, each pocket being capable of reversibly engaging with an apposed member,

c) wherein the numbers n and m are not the same, thereby raising the probability that at any moment the free end of any one member is closely adjacent in a rotational sense to one pocket, so that in use the amount of rotation required in the engaging direction before engagement of at least one member and adjacent pocket is reduced,

characterised in that the numbers n and m are selected so that in use engagement of more than one set each comprising one pawl member and an adjacent pocket may occur at the same time in a symmetrical manner about the co-axial axis, thereby distributing the load between more than one set of members and adjacent pockets and minimising asymmetry of forces within the clutch, and

characterised in that the one-way clutch includes a resilient surface within the or each pocket against which a side of the member lies, permitting minor changes in the angle of rotation of the pawl member to occur when in the engaged position, so that relative dimensional imperfections are at least partially compensated and so that load sharing is facilitated between more than one engaged set.

21. (new) The one-way clutch as claimed in claim 20, characterised in that the one-way clutch includes a resilient protrusion within the or each pawl member extending from a side of the member which protrusion, when in the engaged position, makes contact with a side of the pocket permitting minor changes in the angle of rotation of the pawl to occur when in the engaged position, so that dimensional imperfections are at least partially compensated and so that load sharing is facilitated between engaged pairs of pawls and pockets.